

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/724,167	KANG, SUNG-WOOK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rakesh Kumar	3654	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☒ The drawings filed on 12/01/2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

*pd*

## **DETAILED ACTION**

### **Examiner's Amendment**

1. The following is an examiner's statement of reasons for allowance:

The claim 1 is allowable over the prior art of record because the teachings of the references taken as a whole do not show or render obvious the combination set forth, including a first gear train to swing within a predetermined angle around the feed roller shaft in a feed roller shaft direction and a third gear train swinging within a predetermined angle around a front end gear shaft of the convey roller. A control unit controlling the first and the second gear trains to separate from each other by the entrance of the paper into the feed roller so that the driving power is blocked to the convey roller.

2. The claim 11 is allowable over the prior art of record because the teachings of the references taken as a whole do not show or render obvious the combination set forth, including a plurality of the first gear trains disposed on both sides of the feed roller shaft swinging within a predetermined angle around a feed roller shaft. The third gear trains swinging within a predetermined angle around a front end gear shaft of the convey roller. The first gear train separates off the second gear trains thereby preventing the pickup roller unit from rotating and the third gear train pivots downwards on the front end gear shaft of the third gear trains thereby being separated off the pinch roller.

3. The claim 21 is allowable over the prior art of record because the teachings of the references taken as a whole do not show or render obvious the combination set forth, including a first gear train to swing within a predetermined angle around the feed roller shaft in the feed roller shaft direction and a third gear train swinging within a predetermined angle around a front end gear shaft of the convey roller. A control unit controlling the rotation direction of the first gear train to cause the first gear train to separate from the second gear train, thereby blocking the transmission of the of the driving power to the second gear train.

4. The claim 31 is allowable over the prior art of record because the teachings of the references taken as a whole do not show or render obvious the combination set forth, including reversing the motor rotation to transmits a second rotation force to the feed roller such that the first rotation force is no longer transferred to the pickup and convey rollers, at a predetermined time, operating the feed roller and determining whether a second command has been issued, when the operating of the feed roller ends.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. The application has been amended as follows:

Referring to claim 1 line 3 the word "the" feed roller has been changed to - - a - - feed roller.

Referring to claim 11 line 3 the word "the" feed roller has been changed to - - a - - feed roller.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure include:

U.S. Patent No. 4,577,849 issued to Watanabe discloses a multiple source paper conveyor system, which uses fixed gear assemblies mounted onto movable arm.

U.S. Patent No. 2,999,592 issued to S. Brand discloses a gear based record sorting machine.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RK

A handwritten signature in cursive script that reads "Kathy Matecki".

KATHY MATECKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600